



# ST. LAWRENCE ISLANDS NATIONAL PARK OF CANADA

MALLORYTOWN  
LANDING, ONTARIO

## The Pitch Pine Post

SPRING 2010

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### St. Lawrence Islands National Park

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## Fire clears path for new pitch pine

The huge column of smoke that rose from Georgina Island one warm day last August signalled the rebirth of a very special island ecosystem.

Parks Canada was conducting a prescribed burn, and while the immediate results were fiery and dramatic, drawing a number of onlookers on land and river alike, the most important effects of the fire are to be seen now in the quiet, gradual process of regeneration.

The purpose of the burn was to create soil and forest conditions that will encourage the growth of pitch pine seedlings on the western end of the island. Already there are indications that the burn is benefiting fire-dependent species on the island. Even in the short growth period last fall there was a resurgence of red oak and a variety of blueberry species.

In addition to helping pitch pine, the burn is potentially beneficial for deerberry, a species at risk found within the park. The conditions created in a post-burn environment like Georgina – reduced competition and increased sunlight – are favourable to

See *GEORGINA* on page 3



Photo: Chris Bellemore

A Parks Canada fire official keeps an eye on the Georgina Island prescribed fire last August. The fire cleared the way for fire-dependent species like the rare pitch pine tree. A fire to promote the growth of red oak trees on Gordon Island is planned for this spring.

## Trails and exhibits open



St. Lawrence Islands National Park's Jones Creek trail network was officially opened by Gord Brown, member of Parliament for Leeds-Grenville, in a ceremony last September.

The 15-kilometer trail network at Jones Creek was completed last summer with the construction of a 200-metre boardwalk and bridge across Mud Creek. Hundreds of visitors have hiked, snowshoed, and skied the trails over the past several months.

"We've been thrilled to see so many people using the trails," says Paul Bruneau, St. Lawrence Islands National Park visitor services coordinator. "The parking lot off the



New outdoor exhibits at Mallorytown Landing include mural paintings by Kingston artist Jan Swaren and rock carvings by Akwesasne carver Andy Swamp.

1000 Islands Parkway almost always has vehicles in it, and word is spreading that the trails are open, and they are beautiful."

The September ceremony also celebrated the completion of the Mallorytown Landing revitaliza-

See *MALLORYTOWN* on page 2



Photos: Parks Canada

## New park wardens for law enforcement

Three new park wardens will be stationed at St. Lawrence Islands National Park beginning in May 2010 as part of the new Parks Canada warden service, which is now responsible for law enforcement

See *WARDENS* on page 11

## Accidental fire burns Grenadier

A fire at a private cottage on Grenadier Island on April 4 spread onto national park property at the island's east end, where it destroyed the historic ice house and damaged the campground. Four American and two Canadian fire departments responded to the blaze, which

See *WILDFIRE* on page 8



## The Superintendent Says...

By Jeff Leggo, St. Lawrence Islands National Park Acting Superintendent



Hello and welcome to the 106th year of St. Lawrence Islands National Park.

This edition of the *Pitch Pine Post* highlights recent and upcoming events at the park. In addition to providing great visitor experiences, a healthy ecosystem is also directly related to human health, as you can read in the article on page 9. Our resource management projects aim to protect the park so that it is here for all Canadians to visit and enjoy now and in the future.

If you are visiting St. Lawrence Islands National Park, you have chosen a great time to come, with many interesting things to see and do. This summer, enjoy a birds of prey show and a geocaching workshop at Mallorytown Landing, several guided hikes throughout the park, and many other exciting events.

During your visit you may notice some changes to the way that the park is managed, some of which are presented in this edition. If you have any questions, please feel free to ask park staff for further information. As in other years, your input on the operation of the park is important to us, and your comments are always welcome.

While you are visiting, take the opportunity to stroll the new trail system through the forest and wetland ecosystem of Jones Creek or experience paddling and hiking in other parts of the park. There is always a spot to stop and enjoy the natural setting of this special place. Enjoy a safe and happy experience and we hope you return home refreshed after your visit to the park.



Photo: Parks Canada

Bring a camera to capture the beauty of St. Lawrence Islands National Park and the 1000 Islands.

## Mallorytown Landing ceremony celebrates new exhibits and recognizes volunteers

Continued from page 1

tion project, which includes a new playground, shoreline renaturalization, and new walking paths, exhibits, and artwork.

The Mohawk Thanksgiving Address, a traditional opening and closing for meetings and gatherings, is depicted as rock carvings displayed along the pathways at Mallorytown Landing.

"The Thanksgiving Address and other aspects of Mohawk culture are explained on panels at 'contemplation rock,' where there is a wonderful view of the river," explains Sophie Borcoman, St. Lawrence Islands National Park visitor experience manager. "And in addition, visitors can explore Mallorytown Landing to find each of the elements of the address – such as the stars, the birds, and the waters – beautifully carved on rocks scattered across the landscape."

A colourful mural depicting visitors in the park in all four seasons, sculpted ospreys made of recycled materials, and panels describing the winners of the park's leaders of the landscape contest (see page 4) were also

installed in the fall.

Park volunteers and several regional residents were honoured at the ceremony as part of a day of activities and special events called "A Celebration of New Places and Familiar Faces." Trail stewards, islands stewards, citizen scientists and other volunteers donated more than 4,000 hours to St. Lawrence Islands National Park in 2009.

"I am proud to represent this region in Ottawa, and very pleased to honour the many citizen volunteers and community partners of all ages who get involved with St. Lawrence Islands National Park," said MP Gord Brown. "When contributing to and supporting the work of Parks Canada, you make our communities a healthier and greener place to live and you contribute to ensuring that this living legacy is preserved for future generations."

For more information about the Mallorytown Landing revitalization, new trails, or volunteer opportunities at the park, please call 613-923-5261.

## Looking Back...

### Changes over time

Development and changes in farming have dramatically altered the landscape of the 1000 Islands region over the past century.

Landon Bay (right), just east of Gananoque, is now sandwiched between the 1000 Islands Parkway and Highway 401.

Grenadier Island (below) no longer supports a year-round farming community and large portions of the island have returned to pre-settlement forests and wetlands.



Photo: The National Air Photo Library of Canada

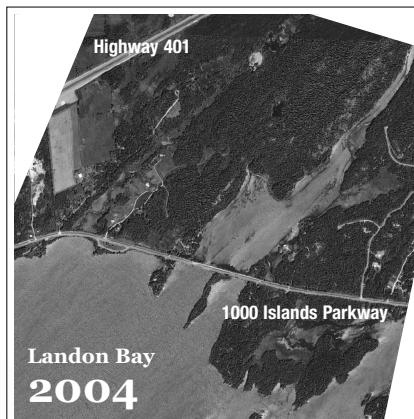
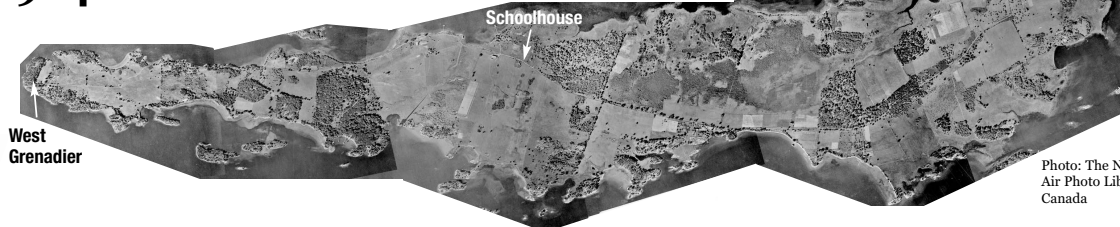


Photo: Quickbird Satellite Imagery, Ontario Ministry of Natural Resources

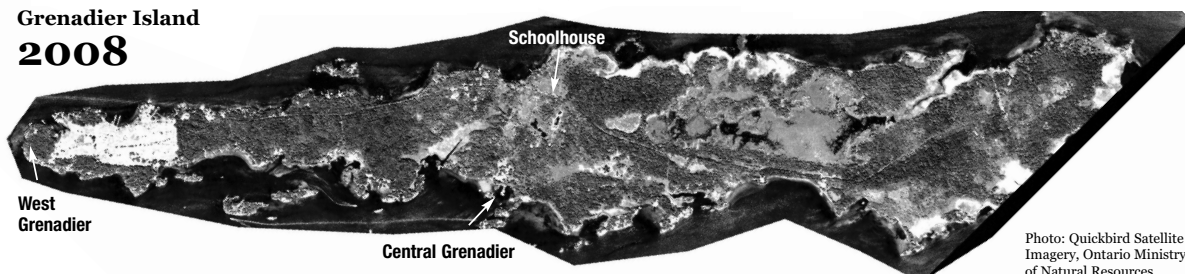
### Grenadier Island 1924



West  
Grenadier

Photo: The National  
Air Photo Library of  
Canada

### Grenadier Island 2008



West  
Grenadier

Central Grenadier

Photo: Quickbird Satellite  
Imagery, Ontario Ministry  
of Natural Resources



# Gordon Island prescribed burn will benefit red oaks

Following a safe and successful prescribed burn on Georgina Island, St. Lawrence Islands National Park conducted another burn this spring, this time on Gordon Island.

In this case, the application of fire is aimed at restoring a red oak forest. Like the pitch pine in the Georgina Island burn, red oak requires periodic wildfire to create conditions for successful regeneration. Fire suppression over the last century has altered this process, so the park is stepping in to simulate a naturally occurring fire for the benefit of the oaks.

"Given the beneficial effect of fire on red oak regeneration, prescribed burning can be an appropriate and cost-effective restoration technique," says Harry Szeto, acting manager of resource conservation.

The fire will be a fresh start for a forest that has been damaged by a combination of drought and infestation by gypsy moth and oak worm. It will reduce competition at the shrub layer and allow oak

seedlings to get a head start and grow to a height above that layer.

Trees are less affected by fire when they are dormant and research has shown that spring-time burns provide optimal results. The prescribed burn encompassed seven hectares, which is 80 per cent of the island, and avoided the northeast end of the island where there are park structures. Though of a larger scale, the burn was a less intense fire than the one conducted last summer on Georgina Island to promote pitch pine growth. Gordon Island will require a second burn in two to four years.

The operation involved some of the same Parks Canada fire specialists and crews that worked on the Georgina Island burn last summer. The fire crew from St. Lawrence Islands National Park was joined by staff from Parks Canada's national office, a fire crew from La Mauricie National Park, the Gananoque Fire Department, Leeds and the Thousand Islands volunteer firefighters, and the Ontario Provincial Police.



Photo: Parks Canada

Smoke and flames from the Georgina Island prescribed fire created dramatic pictures from the St. Lawrence River. A larger but less intense fire took place on Gordon Island this spring.

## Georgina fire helps species at risk

*Continued from page 1*

deerberry, and park ecosystem scientists planted several deerberry shrubs in a very suitable location after the burn.

"If they are able to survive the pH levels of that particular soil, they will become the fifth population of this rare plant in Canada," says park ecosystem scientist Josh Van Wieren.

A variety of plant species were able to regenerate in the short growing period after the burn, especially bracken fern. These early developments are an encouraging indication of what remains in store for pitch pine on the island.

"With pitch pine, we won't see the full effect of it for many years," says acting superintendent Jeff Leggo. "It will be future generations who see the results of the burn in their entirety."

Laying the groundwork for pitch pine regeneration took careful planning and management. There is an established stand of mature pitch pine at the burn site, but it has seen virtually no new seedling growth for many years. The event was timed to take advantage of moisture and wind conditions that would allow for a low-intensity burn that clears the

way for new growth but still preserves the established stand of mature pitch pines.

Those conditions were in place in early August last summer, so the decision was made to temporarily close the island and conduct the burn when it would be most beneficial to pitch pine regeneration. While visitation to the island was affected for two weeks, the long-term result of the burn will be the preservation of the natural beauty that draws visitors to the island year after year.

The fire has created open spaces for seedlings, burned away leaf litter that would have impeded their germination and provided them with a mineral-rich seedbed that will allow the trees to take root and thrive. Over the next 15 years, St. Lawrence Islands National Park will be monitoring the effects of the fire on the Georgina pitch pine population. This ongoing monitoring is a key component of the prescribed burn program, allowing for adaptive management and providing guidance for future restoration activities.

Visitors to Georgina will see evidence of the regeneration themselves, as the trail loop to the western portion of the island will reopen this spring.



Photo: Marie-Andrée Carrière

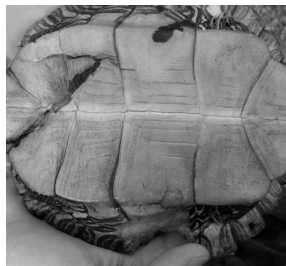


Photo: Grégory Bulté

More than eight per cent of the map turtles captured during turtle studies at St. Lawrence Islands National Park had extensive propeller injuries on their shells. The population is at risk of extinction if even 10 per cent of turtles hit by boats are killed.

## Boat propellers threaten turtle populations

Extensive propeller scars were found on more than eight per cent of the map turtles captured during turtle studies at St. Lawrence Islands National Park.

In a study published in the scientific journal *Aquatic Conservation: Marine and Freshwater Ecosystems* last year, University of Ottawa researchers report that if even 10 per cent of the female turtles that are hit by a boat propeller die, there is a 99 per cent chance that the map turtle population will disappear in the next 500 years.

That alarming statistic is for the map turtle population in the

Canadian waters of the St. Lawrence between Rockport and Mallorytown, Ontario. The population has been intensively studied since 2005.

A 10 per cent mortality rate corresponds to one adult female in the Rockport to Mallorytown Landing section of the river being killed by a boat every 3 years, the study reports. Considering the severity of the scars on surviving turtles, it is not difficult to imagine that a high percentage of turtles that are hit are being killed.

Propeller scars were much more common on adult female

turtles than on males or juvenile females, for a number of possible reasons: female turtles tend to bask at the surface more often, adult females use habitats with more open water and further from shore, females often travel long distances (up to 5 km) to get to nesting grounds, and adult females are larger and therefore more likely to survive a propeller hit than the smaller males and younger turtles.

Boat traffic also tends to be busier and faster in open water

and during the summer months when female turtles are moving to and from nesting grounds.

"No wake" zones in many waterways are in place to prevent shoreline erosion, but might also play a role in reducing turtle injuries and mortalities, especially in sensitive habitat areas, such as hibernation, nesting, and basking sites.

Many marine supply stores also sell propeller guards, which might help to protect turtles basking near the surface of the water in busy boat traffic zones.

## Leaders of the landscape honoured

Hundreds have new homes because of Garnet Baker and Dwayne Struthers. Hundreds of animals, that is.

Baker and Struthers are among 15 regional residents whose efforts to promote sustainability in the 1000 Islands region were recognized in St. Lawrence Islands National Park's Leaders of the Landscape contest last year.

Baker and Struthers have built nesting structures and platforms for eagles, osprey, falcons, ducks, owls, bluebirds, and even black rat snakes. In addition, they involve local landowners and schools, teaching others how to construct and monitor the nests through their "Woodworking for Wildlife" programs.

The contributions of Baker and Struthers and the other Leaders of the Landscape winners are celebrated in an outdoor exhibit that is part of the recent revitalization of Mallorytown Landing.

Carol Pratt, a teacher at Brockville Collegiate Institute, nominated her co-worker Anik Hahn.

"In her professional as well as her personal life, Anik talks the talk and walks the walk," Pratt wrote in the nomination. "She has been instrumental in starting the Environment Club at Brockville Collegiate Institute, and in keeping it going."

Hahn was chosen as a Leaders of the Landscape winner in environmental education for the numerous projects she initiated

with the school's environment club, and for her personal efforts to promote sustainability and environmental awareness.

Long-time park visitors were also among the winners. John



Photo: George Vandervlugt

Gananogue student Fraser Macaulay receives an award from Parks Canada field unit superintendent Gord Giffin at a ceremony at Mallorytown Landing last fall. Macaulay was recognized for his youth leadership in St. Lawrence Islands National Park's Leaders of the Landscape contest.

and Joan Leech of Kingston switched to solar power on board their boat several years ago and now volunteer as park island stewards, willingly sharing information about solar power with park visitors.

Other winners installed solar energy systems in their homes, grew native plants in their gardens, preserved large tracts of land, initiated tree-planting programs, and started school recycling programs.

The contest recognized both youth and adult leaders for their environmental actions. The park received many nominations for the nine contest categories, a testimony to the region's commitment to sustainability and environmental stewardship.

*"...beautiful isles remain in a state of nature, a gigantic national park, where tents may be pitched and camps built at will..."*

- Thadus Leavitt, 1877



Photo: Parks Canada

A Mallory family reunion picnic in one of the original national park picnic shelters at Mallorytown Landing in the early 20th century. Although the park was officially established in 1904, references to a national park in the 1000 Islands date back to 1877.

## The first national park - unofficially

Was St. Lawrence Islands National Park the first part of Canada to be considered as a national park?

As Parks Canada prepares to celebrate 100 years since the formation of the first national park service in the world, anniversaries have become a topic of conversation across the country.

While 2011 will mark the centennial of Parks Canada's forerunner, the Dominion Parks Branch, Banff National Park celebrates its 125th anniversary this year. It officially became the first national park in Canada when it was established in 1885.

Unofficially, the 1000 Islands region may have been the first area in Canada to be considered for national park status. In 1874, the people of Prescott and Brockville began petitioning the government to not sell islands to private individuals. Residents were concerned they would no longer have access to the islands that were already being used as public parks.

The 1000 Islands have long been held as a sacred area by the Haudenosaunee (Iroquois Confederacy). Decades before the Brockville petition, the Haudenosaunee had also expressed a need to have the area protected.

Thadus Leavitt, a newspaper editor for the *Brockville Recorder*, may have been the first to refer to the region as a national park. On September 6, 1877 his editorial described the 1000 Islands as an area where "...beautiful isles remain in a state of nature, a gigantic national park, where tents may be pitched and camps built at will, only provisions being that the foliage be not destroyed."

He went on to write, "Nowhere on the continent of America, or for that matter in the world, is there a national park of equal beauty and magnitude as the Canadian Thousand Islands. That it should be preserved intact no statesman will hesitate to deny."

It took several years, however,

before St. Lawrence Islands National Park was officially created as a national park on September 20, 1904 by a federal government order-in-council. The original park included a mainland base donated by the Mallory family at Mallorytown Landing, ten islands (Aubrey, Mermaid, Beau Rivage, Camelot, Endymion, Gordon, Georgina, Constance, Adelaide and Stovin), and part of Grenadier Island.



Photo: Parks Canada

The remains of a 19th-century British gunboat were raised from the St. Lawrence River and preserved in the 1960s. They have been on display at St. Lawrence Islands National Park since that time and will soon be moving to a new home at Fort Wellington National Historic Site in Prescott.

## Historic gunboat will be centrepiece of Fort Wellington visitor centre

After more than 30 years at St. Lawrence Islands National Park, the historic Brown's Bay wreck will soon be moving to a new home just downriver at Fort Wellington National Historic Site in Prescott.

The remains of the 19th-century British gunboat will become the centrepiece of Fort Wellington's new multi-million-dollar visitor centre. The centre is slated to open in time for War of 1812 celebrations in 2012.

"At over 50 feet long, the gunboat hull is an authentic artefact that will help to vividly illustrate the story of the War of 1812," says John Grenville, national historic sites program manager for Parks Canada. "The relocation of this gunboat will provide an opportunity to engage visitors and help tell the story of the role that the British military played in the defence of Canada along the strategic St. Lawrence River."

Fort Wellington was built during the War of 1812 to defend the St. Lawrence River shipping route between Montreal and

Kingston from possible attack by the United States. It was called into service again and rebuilt in 1838 when Canadian rebels and their American compatriots threatened invasion.

The fort continued to be used for military purposes, with occasional periods of abandonment, until it was transferred to the Department of the Interior in 1923 to be opened to the public as an historic site. Today, Fort Wellington welcomes thousands of visitors from across Canada and from around the world every year.

Funding for the new Fort Wellington visitor centre and for the enhanced gunboat exhibit was announced in February by Gord Brown, member of Parliament for Leeds-Grenville, as part of Canada's Economic Action Plan.

The remains of the British gunboat were found in Brown's Bay, several kilometers east of Mallorytown Landing, and raised from the river as part of a centennial project in 1967.

For more information, please call 613-925-2896.



# MP proposes name change for St. Lawrence Islands National Park

*Local municipalities support proposal*

What's in a name? A lot of confusion, according MP Gord Brown. Brown, with the support of several local municipalities and interest groups, has proposed changing the name of St. Lawrence Islands National Park to solve the problem of confusion with the provincially operated St. Lawrence Parks Commission and Brockville's St. Lawrence Park.

"It is our belief that renaming [the park] would bring clarity to the location of this national park and help tie it into our region," says Brown, member of Parliament for Leeds-Grenville. "We also believe that renaming the park would assist branding efforts underway in the 1000 Islands region to promote tourism and business development."

The motion to rename the park was initiated after Parks Canada aired a television ad that featured several national parks and national historic sites and ended with a short clip from St. Lawrence Islands National Park.

"It has occurred to folks who live in the area of St. Lawrence Islands National Park that as presented [in the ad], the park could be anywhere along the St. Lawrence River," says Brown.

The City of Kingston, Front of Yonge Township, the Township of Leeds and the Thousand Islands, the Town of Gananoque, the Thousand Islands Area Residents' Association and the directors of the Frontenac Arch Biosphere Reserve all approved motions in support of the name change last summer. The 1000 Islands Gananoque Chamber of Commerce is also lending its support to the proposal.

To move forward with a possible name change, consultation with First Nations, individual area residents, tourism partners, the provincial government, and traditional park users will take place over the next year.

"We will be using a variety of methods, including surveys and public meetings, to solicit input

on the name change," says Chris Bellemore, St. Lawrence Islands National Park external relations coordinator.

The names of two national parks have been changed in the past, both as part of land claim agreements. Ivvavik National Park was originally known as Northern Yukon National Park and Quittinirpaaq National Park was formerly Ellesmere Island National Park.

St. Lawrence Islands National Park's name was officially established by the government in 1904. Historic government records do not clearly explain why that name was selected, but refer to the park land as "islands situated in the River St. Lawrence" and "islands in the St. Lawrence which comprise the Thousand Islands Group."

To add your input to the consultation or for more information, please call 613-923-5261 or email [ont-sli@pc.gc.ca](mailto:ont-sli@pc.gc.ca).

# Fencing used to reduce roadkill

The low black fencing near the tree line along parts of the 1000 Islands Parkway last summer was put in place to keep animals off the road and direct them under it instead.

Of the 195 culverts that divert water under the 37-kilometre parkway, approximately 60 are open at both ends and might be used by animals as an alternate way to cross the road.

In 2009, low fences were set up at four locations to direct animals toward culverts. Fences were set up in areas identified in 2008 as roadkill "hotspots" for different animal groups.

Motion-sensor cameras located at four of the culvert crossings showed several mammal species at the entrance or emerging from the culvert. Animals caught on camera included red squirrel, grey squirrel, mink, otter, weasel, chipmunk, and an entire family of raccoons.

As in 2008, a researcher biked along the road four days a week to identify and mark the location of each roadkill victim. Although the results of the 2009 roadkill survey are not yet available, the hope is that mortality rates have been lowered from 2008's average of more than 5 animals per kilometre per day.

"We wanted to see if roadkill of frogs and turtles would go down," explains Josh Van Wieren, St. Lawrence Islands National Park ecosystem scientist. "If we find that these temporary mitigation methods worked, we could work with partners to look at doing something more permanent."

Frogs were the most common victims in 2008, making up more than 87 per cent of all recorded roadkill. Final data analysis revealed an estimated 35,140 animals were killed along the 1000 Islands Parkway between April and October of 2008. Multiple individuals of five species at risk were among the victims.

With St. Lawrence Islands National Park land on both sides of the 1000 Islands Parkway, it is important for park managers to understand more about the effects of roadkill so that species at risk and other animals in the park can be protected.

For more information, please call 613-923-5261.

# Maybe not so slow?

*Female Blanding's turtle travels nearly 2 km in one day*

One Blanding's turtle on Grenadier Island is busting the slow and steady myth and proving that plodding is not the pace for all turtles. In the summer of 2009, a female Blanding's turtle at St. Lawrence Islands National Park moved more than 1,900 metres in a single day during the nesting season.

The Blanding's turtle's movements were tracked as part of a five-year study that looked at stinkpot, map, and Blanding's turtle populations in and around St. Lawrence Islands National Park.

Last summer marked the study's final year.

"We now have a feel for the home range of all three turtle species," says Josh Van Wieren, ecosystem scientist at St. Lawrence Islands National Park. "We know approximately how many turtles there are, the size of the area they use, and where they go at different times of the year to breed, feed, and hibernate."

Male and female Blanding's turtles on Grenadier Island have an average home range of nine hectares (22 acres). Nesting turtles travelled the furthest, with one female using a surprising 40

hectares (100 acres).

Knowing home ranges and movement patterns allows park researchers to choose areas where management activities might have the most positive effect on turtle populations. Population estimates then allow biologists to assess the health of the species.

"Over time, population trends are the only tool that allow researchers to measure how well conservation initiatives are working," explains Catherine Millar, the Ottawa University researcher

who led the turtle study in 2008 and 2009.

Population trends are key for guiding the biologists who decide



Photo: Parks Canada  
A young Blanding's turtle, one of three turtle species at risk whose habitats and movements have been extensively studied at St. Lawrence Islands National Park.



Photo: Parks Canada

University of Ottawa graduate student Catherine Millar attached radio transmitters to the shells of 19 Blanding's turtles on Grenadier Island in 2009. The turtles were tracked almost daily from late April to the end of August to gather information about home ranges and habitat use.

whether a species is at risk and the degree of that risk (special concern, threatened, endangered, etc.).

For more information about turtles at St. Lawrence Islands National Park, please call 613-923-5261 or visit [www.pc.gc.ca/sli](http://www.pc.gc.ca/sli).

Species	Study Area	Population estimate
Blanding's turtle <i>Emydoidea blandingii</i>	Brooker's Creek wetland complex on Grenadier Island	115 turtles
Map turtle <i>Graptemys geographica</i>	Canadian waters of the St. Lawrence River between Mallo-rytown Landing and Rockport	650 turtles
Stinkpot turtle <i>Sternotherus odoratus</i>	Canadian waters of the St. Lawrence River between Mallo-rytown Landing and Rockport	240 turtles

## Retired superintendent leaves legacy of relationships

When Gord Giffin retired earlier this year, the strong connections he had forged during his career were evident in the guests present at his retirement party. The crowd included many of Parks Canada's community partners and stakeholders from all parts of Eastern Ontario.

"I am thankful that I played some part in bringing Parks Canada and communities together," Giffin said, looking back over more than three decades of work with the agency. "I am proud of St. Lawrence Islands and its outstanding staff and friends. We have come a long way together, and the park along with its partners is going to set a very high bar for Parks Canada."

Giffin began his career with Parks Canada as a summer student at Newboro Lockstation on the Rideau Canal. He moved on to work as a lockmaster at Ottawa Locks and in various management positions at parks and sites across

the country. In 2001, Giffin returned to eastern Ontario as superintendent of St. Lawrence Islands National Park and, more recently, as acting field unit superintendent for Parks Canada's Eastern Ontario Field Unit.



Photo: Bill Pratt

Well-wishers at the retirement party also included many Parks Canada staff members. Giffin was very appreciative of the support shown by Parks Canada staff members at the event and says he's thankful for all of the people he has worked with and who have taught him over the years. He feels he's had the opportunity to work for an outstanding organization where there were opportunities to make a difference, even while working through challenges.

"Even with its blemishes, it is still an incredible place to work," says Giffin.

In his eight years at St. Lawrence Islands National Park, Giffin's achievements include pro-

tecting sensitive species at risk habitat while doubling the size of the national park, initiating the development of an extensive trail on the mainland, and strengthening the park's ties with the Mohawks of Akwesasne.

In 2007, Akwesasne invited the national park, led by Giffin, to take part in a traditional Smoky Fire ceremony to formalize a commitment to work together. It was the first time in more than a decade that the unique cultural ceremony had taken place with the federal government.

"What I've learned from the Mohawk is the way of peace," says Giffin. "I applied that in building relationships which resulted in the park forging strong partnerships with our communities."

In the 18 months prior to his retirement in February, Giffin's leadership led to the successful launch of the Rideau Corridor Landscape Strategy. This project brings together Parks Canada, the Algonquians of Ontario, 13 municipalities, two counties, and numerous stakeholders to work together on an innovative and long-term plan for the protection and enjoyment of the Rideau Canal World Heritage Site.

"Gord challenges all those

## Invasive Species Watch

Invasive species are those that have been introduced to regions outside of their normal range and pose a threat to the health of natural ecosystems, the economy and even human health. Invasive species are one of the top three stresses on ecological integrity at St. Lawrence Islands National Park. Be on the lookout for these invasive species:

### Garlic mustard *Alliaria petiolata*



Photo: Parks Canada

With small white flowers and a distinctive onion- or garlic-like odour, this invasive plant is rapidly expanding in moist areas along roadways and railways, and often invades mature, undisturbed forests. Garlic mustard comes up early in the spring, which gives it a head start over native wildflowers.

and make a difference in the ecosystem."

A survey of Grenadier Island completed in 2009 by Agata Pawlowski, a student in the School for Resource and Environmental Studies at Dalhousie University, confirmed dense populations of garlic mustard in disturbed areas across the island. The park's immediate goal is to slow the spread of the plant by encouraging visitors to stay on trails and keep their pets leashed.

Garlic mustard can be found throughout eastern Ontario.

For more information about garlic mustard and removal techniques, visit:

<http://na.fs.fed.us/spfo/invasiveplants/factsheets/pdf/garlic-mustard.pdf>.

## Hill Island vegetation rebounds

Lower deer numbers are having a positive effect on Hill Island's plants and animals, which include 17 regionally and nationally threatened species.

"Two snowier winters (2007 and 2008), along with deer management, have reduced the number of deer on Hill Island," explains Dr. Emily Gonzales, ecosystem scientist at St. Lawrence Islands National Park. "Coupled with cool, wet summers, the last two years have provided the right recipe for plant recovery."

Increased growth of trees and shrubs is a positive sign toward the recovery of the island's plant community, which had been dev-

astated by an overabundance of white-tailed deer (*Odocoileus virginianus*).

Plant growth will continue to be monitored for the next several years. In the meantime, the next step in the recovery of vegetation is to manage alien invasive species, several of which are abundant and increasing on Hill Island.

St. Lawrence Islands National Park is working with other national parks in Ontario to develop strategies to prevent and control the spread of alien invasive species.

Human activities are largely responsible for the spread of alien species but human activities will also be the solution.



Photo: Garnet Baker

### Successful stewardship

A volunteer holds two newly hatched snakes from a nest box constructed at Landon Bay as part of the gray rat-snake (*Elaphe obsoleta*) habitat creation program. Though tiny when they hatched in the fall of 2009, these reptiles are Canada's largest snake species. To learn more about what you can do to protect this non-venomous species at risk on your property, call the Leeds County Stewardship Council at 613-342-8526 or visit:

[www.ontariostewardship.org/councils/leeds/files/BRS\\_HomeownersBrochure\\_Web1.pdf](http://www.ontariostewardship.org/councils/leeds/files/BRS_HomeownersBrochure_Web1.pdf)

around him to take risks and aim for excellence," says Jeff Leggo, acting superintendent at St. Lawrence Islands National Park. "His perceptive leadership has inspired a new generation of Parks Canada staff who will carry his innovative, strategic, risk-taking approach throughout their careers."

### Dog-strangling vine or pale swallowwort

*Vincetoxicum rossicum* and  
*Vincetoxicum nigrum*



Photo: Parks Canada

This aggressive Eurasian vine with purplish flowers can grow as much as 1-2 metres in one year, generally along roads, fence lines, and hill-sides. A member of the milkweed family, the vine chokes out trees, affects monarch butterfly populations, and threatens rare plant species. Leaves are opposite, 5-10 cm long, hairless, dark green, shiny, and oblong to ovate in shape, narrowing to a point at the tip.

**Have you seen  
dog-strangling vine on or  
near park property?  
Help stop the spread of this  
invasive species by reporting  
it to the park.  
Call 613-923-5261.**

Restoration efforts to reduce non-native species within the national park will be strengthened by the help of local residents. The park will continue to work with landowners, regional partners, and volunteers to monitor and control alien plants.



# Akwesasne's Voice

*St. Lawrence Islands National Park is working in close cooperation with the Mohawks of Akwesasne, a community of approximately 21,000 that straddles the boundary between Canada and the United States at Cornwall. The park recognizes the strong ties that the community of Akwesasne has to the natural world.*

*The following article is reprinted with permission of the author, Brendan White, communications officer for the Mohawk Council of Akwesasne. It first appeared in the publication Akwesasne: A Special People in a Special Place in February 2008.*

## Eagle sees everything in the natural world

Akwesasne has a rich and diverse ecosystem. Its nearly 3,000 acres of wetlands support a variety of plants, fish, birds, and other animals. The fertile river's shallow marshes offer shelter for fish to spawn and protected areas for wildlife, like the bald eagle, to hunt. It also provides medicinal plants, materials used by local artisans, and foods that continue to be an important part of our culture.

The eagle is the Creator's messenger as it flies the highest and sees the furthest of all the birds. It is revered and honoured for its important role in viewing everything that takes place in the natural world. It is often seen flying over Akwesasne and resting along the banks of the St. Lawrence River, known as Kaniatarowanneneh (Big River).

The Kaniienkehaka (Mohawk

People) have a relationship of respect and responsibility with the St. Lawrence River. It's a relationship that acknowledges the inter-relatedness and interdependence amongst all forms of life. This web of relationships forms our natural environment.

We recognize and give thanks to all, including the animals and fish, for their gifts to the world in our Ohen:ton Karihwatehkwen (Thanksgiving Address). In our creation, it was the animals that were critical in preparing for the coming of human beings. We are dependent upon them for food,



Photo: Tom Lusk

*Adult bald eagle (Haliaeetus leucocephalus) over the frozen St. Lawrence River in March.*

medicine, and clothing. We also look to them for emotional and spiritual strength, as well as for survival.

The Ohen:ton Karihwatehkwen places all life forms in an interdependent relationship with each other. It places a burden of responsibility on all parts of the natural world to ensure its proper functioning. It places a special set of responsibilities on human beings to understand and reconcile any disruption to its natural state.

We believe in a holistic approach to all decisions that may impact our natural world and the web of relationships that exist within it.

## The Blanding's Turtle as told by Henry Lickers in Voices of Akwesasne

I grew up in the Six Nations reserve down near Brantford. I lived with my grandmother and my grandfather and great-grandmother and ... I was quite young. And every night, when the kids would sit around (we had 13 kids at home), grandparents would tell us stories about the world, and the world around us, and the creatures there - how we related to them, and why they were important to us.

One of them was the story about the Blanding's turtle. The Blanding's turtle has a yellow throat, always looks like it's smiling, and there's a good reason for that.

At that time the sun and the moon and the stars could walk around the world and see us, in a way they don't today. They're up in the sky for a purpose now. But back then, they could come and visit us. They could knock on the door and walk in. The sun decided that it was going to come down to the earth, and look around, and see how everything was going, and see that the proper things

were being done. Well, there was an Evil Person, and this Evil Person seized the sun and put him in a big box and held him in that box and he couldn't get out. We talk about the sun being our elder brother. And so, the world was left in darkness. There was no light. The only thing in the sky was Grandmother moon, and she couldn't do the work that the sun could do. And so all of the creatures of the world decided that they had to free the sun because in this darkness there would be no food and no way to walk around. Well, they all tried. And the story goes on for a very long time about this as each animal tries to free the sun and fails.

So finally the Blanding's turtle decides that it wants to try. And at that time, the Blanding's turtle was a pretty drab looking turtle. You know, dark, black, not very exciting. In fact, it very much looked like a stone. He crept up out of the water, across the mud, out across the gravel, and crawled quickly

# Park launches video project

"All of our Native American teachings are greatly needed. How to be in balance with the world, with life, with creation."

Those are the words of Grand Chief Mike Mitchell speaking in *Voices of Akwesasne*, an oral history video produced by Parks Canada in partnership with the Mohawk community of Akwesasne. The video was launched in a celebration at the Tri District Elders Lodge in Akwesasne in December.

There's urgency in what Mitchell says of the need to preserve sustainable ways of living in our environment and to retain that knowledge in an ever-changing world. *Voices of Akwesasne* is an effort to share some of that traditional knowledge with the wider community while recounting the connection between the Haudenosaunee People (also known as the Six Nations Iroquois Confederacy), the St. Lawrence River and the 1000 Islands ecosystem.

Throughout the video, the speakers return to the St. Lawrence River as the reference point for the community. Changes to the river, from the damming of

the waters to generate hydroelectricity to pollution from industry upstream, have brought some very negative changes to life in a community closely connected to those waters. Haudenosaunee teachings hold as a truth that all life forms are interdependent -- that to disrupt one is to disrupt all. In *Voices of Akwesasne*, we hear many stories of how the community is coping with the fallout of a disrupted river ecosystem.

Still, the video reveals how Haudenosaunee tradition maintains the interconnection with the natural world, from a tree restoration project related to traditional basket making, to the knowledge of medicinal plants acquired through a lifetime of learning.

Among the voices in the video is that of Brian David, who offers the traditional concept of "one bowl, one spoon," a vision of how different interests can share access to natural resources.

"It's a principal that I think will survive the test of time and is applicable to the future relationship between Akwesasne and its neighbouring communities," says David.

## See the video and lesson plan

A *Voices of Akwesasne* kiosk will be set up in the park's visitor centre at Mallorytown Landing this summer. St. Lawrence Islands National Park and the community of Akwesasne have developed a lesson plan for grade 9 and 11 students linked to the content of *Voices of Akwesasne* with a focus on species restoration. The lesson plan will be available on the park's website following in-class testing with local schools this spring, including schools in the community of Akwesasne.

For more information, contact the park at ont-sli@pc.gc.ca or call 613-923-5261.



Photo: Parks Canada

*The Blanding's turtle (Emydoidea blandingii) has a bright yellow throat and a mouth that is curved in a perpetual "smile."*

and quietly toward the house.

Well, he got into the house. The Evil Person was walking around and saw this thing on the ground - the turtle of course brought all his arms and legs and everything in - and thought it was a stone, and said, "There's a stone in my house. That doesn't matter." And so he didn't even think about it. But the turtle crawled very quietly over to the box that the sun was being held in, opened up the box, and there was the sun. And he grabbed the sun, and he put the sun under his neck. And he held his neck down like that [bending his neck forward] because he had a space there in order to do that, and held the sun there

and began to walk out of the lodge.

And so the Blanding's turtle was able to get out of the house, and when he did he lifted up his neck and his head, and the sun came out and went back up into the sky. And from that day on the Blanding's turtle, all under his neck, is all yellow, and there's a little bit of spotting around his legs and arms.... he's always laughing that he fooled this evil person, and he's always happy as he basks in that sun.

And so, those were some of the stories that we heard from our grandparents. And now, today, I tell those stories to my children and I hope that they'll tell them to their children.

## Paleoecological studies reconstruct local fire history

Scientists from Queen's University have been searching the depths of local lakes to find evidence of the long-term role of fire in the 1000 Islands ecosystem.

Supervised by Dr. Brian Cumming and Dr. Douglas Hallett, graduate students Suzanne Ellwood and Alexandra Gerber from the School of Environmental Studies have completed research of fossil charcoal in local lake sediments that investigates the frequency of large fire events over the past 12,000 years. This is a period known as the Holocene, and it began as the last ice age was ending.

Parks Canada supported the work as the results will offer a better picture of the historic role of fire in the 1000 Islands ecosystem and can be applied to setting appropriate management goals for fire-dependent ecosystems. The project was also supported by Charleston Lake Provincial Park.

Airborne charcoal lands in lakes during forest fires, and large, stand-replacing fires can be detected in the layers of charcoal laid down in lake sediments. While other methods of tracing fire history, such as tree ring dating, can provide information from the past few hundred years, the study of lake sediments can reveal the fire history of a region dating back thousands of years. Charcoal deposits in soil at Hill Island had been considered for this research, but the soil layers have been disturbed and so do not provide a continuous record. Also, much of the charcoal found was from the modern era, pointing to a more recent history of fire on Hill Island.

In order to get an accurate look back, it's important that the lake sediments are undisturbed. The lakes chosen for the two studies were both located near Charleston Lake.

"Mud Lake and Little Black Lake were chosen as representative study lakes based on their relative isolation from communities, their small size and simple shape, and their small or absent inflows and outflows," says Gerber. "These lake characteristics ensure the sediment and charcoal record remains as undisturbed as possible."

Getting to the lakes to take the samples presented some challenges. For summer fieldwork, large gear was transported by helicopter, and additional equipment was hauled by boat and then by hand to both lake sites. Working from a raft in the centre of the

lake, the researchers assembled long metal coring tubes and drove them down into the lake sediments to extract the cores. Samples were also taken in the winter, when ice served as a stable platform for the work.

After taking a core sample from a lake, coniferous needles, grass fragments, and charcoal pieces were removed and sent for carbon dating. The ages of the material corresponded well with the depth of the core from which each was removed, confirming that the sediment records were undisturbed and continuous.

"Research into modern fires has found that the quantity of charcoal in the lake sediment is considerably higher immediately after a large fire has taken place in the area, and this enables the use of charcoal levels as an indicator of historic fires," says Ellwood. "The amount of charcoal aerally deposited into a lake depends on the size of the fire, its proximity to the lake, and the weather conditions at the time. Most of the fires identified by the analysis of charcoal in Mud Lake and Little Black Lake sediment were likely large, stand-replacing burns that took place relatively close to the lakes."

At Mud Lake, Ellwood determined that, when averaged out, significant burns occurred around the lake at approximately 175-year intervals. For Little Black Lake, the focus of Gerber's study, that interval was approximately 244 years. The different level of fire activity around the two lakes reflects the variations in the landscape in this part of eastern Ontario as well as the variable nature of fire conditions, including moisture and lightning.

The research also revealed that the area's fire frequency may have related to broader climate trends. Fire frequency decreased in the region around 7,500 years ago when wetter summers became more common in eastern Canada, and similar declines in fire activity at that time have been seen in other fire history studies done in this part of the country.

"Studies such as these are valuable to park managers because they give us a record of how, historically, our local forests were renewed," says Parks Canada fire technician Derek Bedford. "This helps us to explain why the forests look the way they do today, and how we need to manage them to preserve their ecological integrity in the future."



Photo: Douglas Hallett  
The coring raft at Little Black Lake.

## Wildfire burns 32 hectares

Continued from page 1



Photo: Jeff Leggo

The new gazebo and composting toilet at East Grenadier were spared in the wildfire that blackened more than 30 hectares (75 acres) of marsh and burned through the campground on April 4.

travelled quickly through tens of hectares of marshland. Thanks to the quick response of nearly 60 firefighters, the historic ice house, a protected heritage structure, was the only building damaged in the wildfire. The three campsites at East Grenadier will be opened by the May long weekend.

## Archaeologists find 5,000-year-old tools

Archaeologists have uncovered stone tools that date back to between 3000 and 2500 BC during recent excavations at St. Lawrence Islands National Park.

Since 2001, archaeologists from Parks Canada have visited virtually every part of the park, from Main Duck Island to the mainland properties, in response to threats to known or suspected archaeological resources.

"We are generally concerned about testing an area within the park that is slated for some form of park development, such as new sign erection, composting toilet construction, trail network expansion, or structure demolition," says Brian Ross, a senior archaeologist for Parks Canada national parks and native sites.

While checking sites to provide clearance for development, the archaeologists have been able to discover new archaeological resources.

"Recently, we were able to salvage artifacts and valuable data by excavating an important site that was threatened by erosion," explains Ross.

Some of the exciting finds in recent years have included 5,000-year-old stone tools, ceramics and pottery from around AD 1500 to 1600, a French gunflint likely from before 1700, and an intact 19th-century cut-stone drain.

Archaeological resources can

tell us about the people who have lived in the 1000 Islands region over the past 5,000 years and more. Analysis of the early stone tools, for example, can give insight into industry and trade routes.

"We have found material in St. Lawrence Islands National Park that comes from Manitoulin Island, Pennsylvania, and Labrador," says Ross. "The people who lived here long before the arrival of Europeans had an amazing trade network over quite a swath of North America."

Archaeology doesn't always mean far in the past. The ruins of a convalescent hospital for World War I soldiers on Thwartway Island are an example of a more modern archaeological resource in St. Lawrence Islands National Park, and one that is truly unique.

**If you find an artifact,** report it to park staff immediately. If the item has been moved, try to record, in as much detail as possible, where it was found.

Remember that damage to an archaeological site and the removal of artifacts from the park is against the law. Cultural resources are not renewable resources! You can never regenerate an 8th-century Owasco campsite.

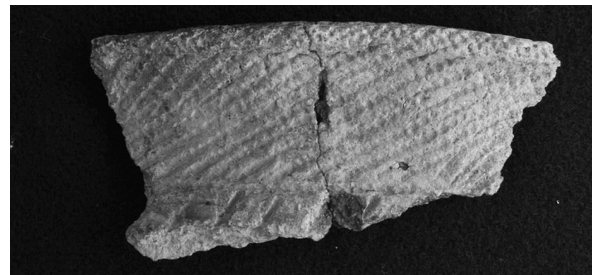


Photo: Ben Mortimer

Throughout St. Lawrence Islands National Park, archaeologists have found ceramic artifacts that are found nowhere else in Ontario. The unique material is from a group of people that archaeologists call the Owasco, who appear to have lived along the St. Lawrence River from around AD 600 to 1300.



# Early bird research

As the saying goes, the early bird gets the worm, but in researcher Pauline Quesnelle's world, the early bird gets the bird.

Last summer, Quesnelle led a team of field researchers gathering information on the local population of cerulean warblers as part of a larger study of habitat use for a number of species. The team had to start out early, and Quesnelle was setting her alarm clock for 3:30 am to search out the secretive bird.

"We wanted to get out there to hear the dawn chorus, when the birds are singing their hearts out and are most active," says Quesnelle. "By surveying at sunrise, we would be sure to not miss any birds and to get an accurate reading on where they're living."

By its very nature, Quesnelle's work in landscape ecology requires long days in the field to cover a lot of territory.

"When you're working on a landscape scale you have to get out to many areas and cover a lot of ground to detect patterns in where certain species occur," says Quesnelle.

Landscape ecology is a field of science that looks at the relationship between wildlife and the landscape features that affect species abundance, distribution and persistence. In essence, it looks at what landscape features positively or negatively affect species survival. These features include forests, wetlands, roads and other environments. The arrangement of these environments, their size, connectedness and placement

near other landscape features affects the reproduction, mortality and movement of wildlife.

Quesnelle's work, part of her graduate studies at Carleton University, uses habitat maps to predict where certain species might be found. Predictions are based on different landscape features for each species. By looking for the species in areas that are predicted to be good habitat, Quesnelle's team can validate the habitat suitability models and gather more details about how and when a species uses different habitats.

Quesnelle will then take the analysis one step further by looking at the factors that influence habitat quality and make seemingly similar tracts of land either suitable or unsuitable for a particular species.

In addition to cerulean warblers, the wildlife surveys include other forest birds, wetland birds and turtles.

The study is a treasure trove of information for those who work in resource conservation at St. Lawrence Islands National Park. The integrated, multi-species approach of the project will help the park concentrate its protection and restoration efforts. It's an efficient way to help a number of species.

"Managing at the habitat level is an effective and efficient way for ecological integrity to be maintained and the well-being of a number of species to be improved," says acting superintendent Jeff Leggo.

## Recovery plan will help rare plant

St. Lawrence Islands National Park is at the centre of a new recovery strategy for one of Canada's rarest plants.

Deerberry (*Vaccinium stamineum*) is a shrub that is extremely rare in this country, with only three populations found in the 1000 Islands and one population found in the Niagara region. It has been designated threatened by both the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and by the Committee on the Status of Species at Risk in Ontario (COSSARO).

Josh Van Wieren, an ecosystem scientist at the park, is part of

the team that developed the plant's recovery strategy.

"Deerberry is one of the many species that make up the rich plant and animal diversity of the 1000 Islands," says Van Wieren. "Protecting the species is not only important to ensure that the four remaining Canadian populations remain a part of this rich ecosystem, but also because Canadian populations are genetically distinct from all others."

The aim of the strategy is to ensure that deerberry populations in Ontario remain stable or increase within the next ten years. The park has already contributed



Photo: Lloyd Spitalnik

## House shopping from a cerulean warbler's point of view

*Cerulean warblers have very particular habitat needs, and choosing a home involves very specific criteria with regard to location, space and "building materials." What kind of habitat has curb appeal for cerulean warblers? Here's their real estate shopping list:*

### An Established Neighbourhood

No new developments for cerulean warblers – they want an established deciduous forest neighbourhood with large, well-spaced trees.

### Location, Location, Location

These birds love waterfront property along rivers and other bodies of water.

### Solid Roof with Skylights

The "roof" is an important selling feature for habitat in the cerulean warbler's world. Cerulean warblers look for a dense foliage cover in the upper midstory and canopy of a forest, but they also seem to prefer this sort of habitat broken up with "skylights" or internal canopy gaps.

### Open Concept with Cathedral Ceilings

A high canopy "ceiling" and a relatively open understory make the cerulean warbler feel at home. This isn't about aesthetics, but more a matter of practicality. Male cerulean warblers in particular seem to prefer certain open-concept core areas that serve as a stage for their singing during breeding. Some scientists have theorized that the males' preference for stands of bitternut hickory in the spring has to do with the hickory's quality of being among the last trees to fully leaf out in eastern Ontario. It is thought that the males like singing in these areas because a more densely forested habitat would block the sound of their mating call.

### A Second Home

A summer resident only, the cerulean warbler is found in eastern Ontario from May to August and migrates to the Andes Mountains of South America for the winter. In the Andes, these birds make their home in mature, humid evergreen forests and modified forest settings such as shade coffee plantations where coffee is grown among larger trees.

## A few plants and animals are disappearing. So what?

A healthy ecosystem is essential for healthy human populations. We require a healthy ecosystem for our basic needs – food (agriculture, pollination), water (clean sources of drinking water), and shelter (ozone layer, air quality, stable climate).

But what makes a healthy ecosystem? Let us compare the functioning of an ecosystem to the

functioning of a car. A car runs most effectively with all of its parts present and in working order. If a tire, spark plug, or fuel is missing, the car will not provide you with the benefits you enjoy. Ecosystems work in the same way. If a component of the ecosystem, such as a snake or turtle species, is removed, the ecosystem ceases to work as it should.

to this effort by working with partners to identify successful propagation and planting techniques. After over 10 years of preparatory work, the park will be planting new populations on park properties over the next five years, including two new populations by 2012. As well, the park has taken measures to ensure that the plants are not trampled, by shifting visitor trails away from deerberry sites.

A large part of helping the population thrive and grow has to do with learning more about the plant – its habitat needs, genetic diversity, life history and population trends. Again, the park is contributing to the recovery effort by conducting important work in the area of habitat mapping. Knowing where deerberry is likely to grow will help in the protection

of habitat within the park and in finding suitable transplantation sites to establish new populations.

The deerberry strategy draws on the expertise of other organizations, among them the Ontario Ministry of Natural Resources, the Niagara Parks Commission and the University of Toronto. Queen's University has been involved in the development of the strategy, conducting genetic research of northern deerberry populations and fine-tuning propagation techniques to ensure that the park has plants to establish new populations in the region.

To learn more about deerberry, see the Draft Recovery Strategy for Deerberry in Ontario at [www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/279150.html](http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/279150.html).

# Ticks continue to thrive in eastern Ontario

An in-depth study of ticks and Lyme disease underway at St. Lawrence Islands National Park has revealed the presence of blacklegged ticks in every surveyed location on both islands and the mainland in the 1000 Islands region.

The park is working with the University of Guelph, Canada's Public Health Agency, and the Ontario Ministry of Natural Resources to gather more information about the prevalence of ticks and what percentage are carrying the Lyme disease pathogen.

"We are interested in wildlife and human health implications of Lyme disease and ticks," explains Jeff Bowman, a research scientist with the Ontario Ministry of Natural Resources. "Our goal is to understand the pathogen and its future in Ontario."

"The more we know, the better we can communicate with the community, visitors, and staff to ensure that everyone can enjoy

the outdoors safely," says Dr. Emily Gonzales, ecosystem scientist at St. Lawrence Islands National Park.

The study is looking at what factors make it more likely that ticks and Lyme disease will be found in certain areas. Deer and small mammal populations, proximity to the source of ticks (the United States), local climate, and plant communities can all influence the number of ticks.

"Based on our first year of data collection, the greatest rates of infection tend to be on islands closest to the United States," explains Gonzales, though she notes that more seasons of fieldwork are needed to confirm that trend because tick populations fluctuate with weather, rodent population cycles and other factors.

Lyme disease has been recognized in the eastern United States since the mid-1970s. Established blacklegged tick populations were confirmed in the 1000 Islands

region in 2006. One of the earliest local sites studied for ticks was Thwartway Island.

"There doesn't seem to be much variation in the data between 2006 and 2009," says Dr. Robbin Lindsay, research scientist with the Public Health Agency of Canada. "Tick prevalence and infection rates on Thwartway seem to be very stable."

Studies in 2009 were expanded to survey twelve island and mainland sites in the 1000 Islands region. On average, 30 per cent of ticks from the surveyed locations carried the bacteria that causes Lyme disease, though there was a great deal of variation from site to site.

Tick hotspots include Cam-elot, Endymion and Thwartway islands, but Gonzales emphasizes that the take-home message is that ticks are everywhere in the 1000 Islands region.

"Ticks and Lyme disease are a part of the eastern Ontario landscape now," she says.

The Leeds, Grenville and Lanark District Health Unit conducts passive tick surveillance by accepting, identifying and testing ticks that have bitten people. The health unit no longer accepts ticks collected from pets, as many vet clinics are now able to test for Lyme disease in-house.

"Last year, 277 ticks removed from humans were submitted for identification and testing," says Kim McCann, senior public health inspector for the Leeds, Grenville and Lanark District Health Unit. "Of those, 224 were blacklegged ticks and 10 per cent were positive for Lyme disease."

The bacteria *Anaplasma*, which causes human granulocytic anaplasmosis (HGA), was also detected in a small percentage of ticks on Thwartway Island. HGA is increasingly recognized as a cause of fever and flu-like symptoms after tick bites in areas of North America with blacklegged ticks. Symptoms range in severity and, in rare cases, infection may

## WARNING

**Blacklegged ticks are present in this region. These ticks can transmit Lyme disease, a serious and potentially disabling infection that can affect your heart and nervous system.**

**Check your body thoroughly for ticks after you have spent time outdoors. Ticks range in size from 1-5 mm. If you have been bitten, remove the tick immediately and see your doctor. For more information, contact the park office at Mallo-rytown Land-ing (613-923-5261) or your local health unit.**



Photo: Parks Canada

## To stay safe:

- Stay on marked trails.
- When hiking, wear insect repellent containing DEET, long sleeves, pants and hiking boots. Tuck pants into your socks. Avoid wearing sandals or bare feet.
- When you return from a day outdoors, check your body thoroughly for ticks.
- Always keep your pets on a leash and on the trails.
- Never feed wildlife.

result in death.

For more information on the park's tick studies or to learn how you can survey and collect ticks for the park or from your backyard, please call 613-923-5261. For more information about Lyme disease and HGA, please contact your local health unit.

## Park and firefighters ready if search and rescue is needed

It's a warm night in September and strange lights appear in the usually dark woods on Hill Island.

The lights move through the trees and, bit-by-bit, the figures of two men become visible. They're wearing headlamps and have a map and compass in hand. As they emerge from a gap in the trees there are shouts of welcome from a group gathered around vehicles at the trailhead.

The men have been taking part in search and rescue training at St. Lawrence Islands National Park. On this particular night, they're learning how to navigate in the dark using only a map and compass.

Last September park staff, along with members of the Front of Yonge Fire Department, learned about search techniques from Ron Williams, a former fire captain and search manager who is currently the park warden supervisor at Bruce Peninsula National Park. Williams led the session with Bruce County paramedic Rob Rouse, a former fire station chief who has been involved in search and rescue for over 20 years both in the park and throughout the Bruce Peninsula.

Williams' training session at the park focussed on the tools and techniques of successful searches – the factors that can make a difference in a lost person case and ensure that the person comes out of the situation alive. The instructors brought their experience into the classroom and into the woods, with training ranging from how to locate a map grid reference to putting these skills into play in

search simulations like the night navigation exercise on Hill Island.

The trainers also shared their knowledge of the psychology of survival, the behavioural profiles of different types of missing persons, and the specific search techniques employed across Canada, from searches for missing persons in national parks to police searches for crime suspects.

"It's fascinating how two people, depending on their age, health or mental state, will react very differently to being lost in the woods," says one of the park trainees, Lisa Werden. "It's interesting information in training and vital information in a real search situation."

A common theme throughout the training was the idea that every search is an emergency. The training also revealed that a search is very much a mystery, and the searcher is a sleuth who requires a good eye for locating and recognizing clues.

"Search is called the classic mystery and, as such, searchers and search managers need to be aware and get as much information as possible," says Williams. "Descriptions and details are critical, and looking for clues is important."

St. Lawrence Islands National Park has invested in this level of training to increase the park's search and rescue capabilities in the event of an incident on the park's new mainland trail system. With the training, a core group of park and fire department searchers are prepared to tackle such mysteries should the need arise.

## Park hosts veterinary student field course

*Eighteen students from Canada's five veterinary colleges spent a week at St. Lawrence Islands National Park as part of a national eco-health field course for vet students last summer. As part of the course, the students collected data for the park's*



Photo: Claire Jardine

*Lyme disease and tick studies, participated in lectures and courses, and made recommendations to the park on communications strategies, research possibilities, and management techniques related to wildlife and disease transmission.*



## Recycling available at four locations in park

Recycling and garbage collection will be available on McDonald, Beau Rivage and Central Grenadier islands and at Mallorytown Landing beginning in May 2010. On all other islands, visitors will be responsible for packing out their own garbage.

The decision to offer garbage pickup at four park locations was reached after several years of public feedback, financial assessment and public consultation. In response to visitors' requests, recycling facilities will be added at the four locations

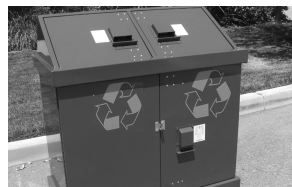


Photo: BearSaver by Haul-All Equipment  
Animal-proof recycling and garbage containers will be available on McDonald, Beau Rivage and Central Grenadier islands and at Mallorytown Landing this summer, where garbage is collected.

Parks Canada is making an effort to provide a service offer that appeals to a variety of users and new generations of Canadians. A review of the service offer is a response to the need to reach out to new potential markets and provide a variety of options to various user groups. This includes a model of islands that allow generator use and islands that are generator free. The park will communicate with user groups on the best approach to phasing in this service model and to help them investigate alternative

energy options and power saving techniques. In 2010, generator use will be permitted at Mallorytown Landing and on the following islands: Aubrey, Beau Rivage, Camelot, Central Grenadier, Grenadier West, Constance, Georgina, Gordon, Hill and McDonald.

The service model is based on several years of public feedback and public consultation. Consultation included public meetings in the fall of 2007 that all season pass holders and the community at large were invited to through newspaper ads and a mailed newsletter outlining the proposed changes to the service offer on the islands. In addition, a survey was mailed to all season pass holders in the spring of 2008. The park's aim is to provide a visitor experience that appeals to all user groups, including boaters, day users, kayakers and canoeists.

The cooperation of boating visitors and changes to garbage collection points and generator use over the past ten years has already begun to reduce the human footprint on the national park. Since 2001, garbage produced in the park has been reduced by 60 per cent. Through park interpretive roving programs and the help of some passionate solar Island Stewards, we have shared information with boaters over the past few seasons on cost-effective and simple alternative energy solutions, and have seen a number of boaters convert to solar.

## PARK FACILITY UPDATE

### Completed in 2009

- ✓ Completion of the composting toilet project with installation of units at Mallorytown Landing and on McDonald, North Grenadier, Constance and Main Duck islands.
- ✓ Ongoing restoration of Mallorytown Landing with planting of native trees, shrubs, and flowers.
- ✓ Removal of all old pit privies.
- ✓ Ongoing repair and chipping of island trails.
- ✓ Installation of a new playground, tree house, pathways, rock sculptures, mural, children's garden, birdhouses, and interpretive signs at Mallorytown Landing.
- ✓ Installation of new signs to direct visitors to mainland trails and the visitor centre.
- ✓ Completion of a boardwalk bridge across Mud Creek and installation of a welcome sign at the Jones Creek trail entrance.
- ✓ Building of a new picnic gazebo at East Grenadier.
- ✓ Installation of new docks at Central Grenadier.
- ✓ Replacement of the dock at Main Duck Island.
- ✓ Stairway installation and repair at steep trail sections on Georgina Island.

### 2010 Projects

- Refurbish or replace docks on Aubrey Island (northwest dock) and Endymion Island (east fixed dock).
- Install a small dock in Landon Bay for access to Fitzsimmons Mountain hiking trail.
- Complete boardwalks and install additional trail markers and welcome signs on Jones Creek and Fitzsimmons Mountain trails.
- Repair Georgina Island trails affected by the 2009 prescribed burn.
- Install new visitor services signs on mainland and island properties.
- Ongoing repair and chipping of island trails.
- Remove storm-damaged trees and repair or replace stairs, ramps, and docks damaged by winter storms.
- Complete a full assessment of visitor facilities; begin repair and replacement of assets in critical condition (picnic tables, campsites, shelters, docks, etc.).
- Install new animal-proof garbage, recycling and food storage containers.

### Your fees at work

Garbage and recycling facilities are also available for a fee at several local marinas and municipal docks. For more information, call 613-923-5261.

### It's up to you!

Objects put in recycling containers will only be recycled if they are clean. One unclean bottle or can will cause the entire bag to be sent to the landfill. Do your part - rinse and wash your containers!

## Wardens to enforce law in park this year

*Continued from page 1*

activities in Canada's national parks.

The wardens will be conducting targeted law enforcement activities related to national park regulations. For example, they will ensure visitors comply with fee payment, conditions of a permit, noise restrictions, and pets on a leash.

The wardens are supported in this work by other park staff and stewardship partners in a wider program of prevention that aims to educate and inform visitors of the rules and regulations to minimize the number of incidents that require law enforcement. Where issues cannot be resolved in this manner, park wardens and other enforcement agencies will step in with targeted actions to address specific problems.

Island attendants and park managers have the authority to cancel the permits of visitors who violate certain rules, and wardens have the authority to issue fines and evict visitors. The law enforcement section will ensure fair, impartial, consistent, professional and proactive law enforcement on all lands and waters administered by Park Canada with the goal to ensure that all visitors have an enjoyable national park experience while respecting the park as a place that has value and meaning for Canadians.

The Parks Canada warden service changed in 2009 in response to a court decision about the dangers to which park wardens are exposed while conducting law enforcement activities. As a result, the park wardens are now an armed service and are focussed on law enforcement. The past ten years have been a period of transition, with law enforcement duties being performed at different times by the RCMP and the Ontario Provincial Police.

This is the first summer that armed park wardens will be dedicated to law enforcement at St. Lawrence Islands National Park. The park wardens will also provide some enforcement services on the Rideau Canal. For more information about the Parks Canada warden service, please call 613-923-5261.

### What are the consequences?

Consequences vary depending on the offence and severity of the incident. Fines for common infractions range from \$65 to \$130, while evictions from the park can range from 48 hours to one year in length. Some of the more common infractions and an example of the possible consequences are listed below.

**Permit violations** (e.g., no permit, invalid permit, illegal mooring)

**Consequences:** \$65 fine, eviction  
**Justification:** Park fees are required to pay for services and facilities. Mooring restrictions, such as yellow lines, are in place to ensure visitor safety and efficient access for emergency and park vessels.

### Pets off leash

**Consequences:** \$90 fine, eviction  
**Justification:** Pets wandering off trails may pick up parasites such as ticks, which can transmit disease to humans. Pets may disturb other visitors, can harm or destroy vegetation and wildlife, and can contribute to the spread of invasive species.

### Open alcohol

**Consequences:** \$130 fine, eviction  
**Justification:** The Liquor Licence Act of Ontario governs the possession and consumption of liquor in the province. Within the park, open liquor is permitted only on registered campsites and on registered, moored vessels that contain facilities normally associated with a residence (beds, lavatories, etc.) with a valid park permit. Open liquor is not permitted in com-

mon areas such as docks, picnic areas, and shelters.

### Collection of natural objects

(e.g., burning fallen branches)

**Consequences:** \$130 fine, eviction  
**Justification:** Fallen trees and branches provide critical habitat for many animals, such as salamanders. Natural cycles of decay return important nutrients to the soil. The removal of any natural object (flowers, herbs, rocks, etc.) disturbs the ecological integrity of the ecosystem. Firewood is available for sale on islands where fires are permitted.

### What happens if I don't pay my fine?

Parks Canada fines are entered into provincial and national law enforcement systems. Parks Canada has an agreement with Ontario, Quebec and New York that will not permit you to renew your driver's licence if you have outstanding fines on your record. In addition, you may have to return to the area where the fine was incurred (in this case, Brockville or Kingston) in order to pay it. For other provinces and states, the matter is turned over to a collection agency.

## Facilities

### Mallorytown Landing

- Visitor centre with live animals, hands-on exhibits, Aboriginal stories, children's activities
- Outdoor exhibits and artwork
- Playground
- 2-km trail with easy and moderate hiking loops
- Boat launch
- Picnic area
- Scenic river views
- Geocaches

### Jones Creek trails

- 12-km trail network of easy to difficult trail loops
- Wildlife viewing
- Lookout points
- Scenic wetland boardwalk
- Geocaches

### Landon Bay Centre

(Privately operated)

- 7-km trail network
- Scenic lookout
- Playground
- Geocaches
- Picnic area
- Campground
- Pool

### Islands

- Docks & mooring buoys
- Composting toilets
- Walking trails
- Campsites (12 islands)
- Picnic shelters (14 islands)
- Scenic river views & wildlife
- Garbage & recycling pick-up (3 islands)
- Beaches (2 islands)
- Geocaches (2 islands)
- Potable water (Central Grenadier only)

## Hours of Operation

### Mallorytown Landing

May 22 to June 6

- 10 a.m. to 4 p.m. weekends and holidays.

June 12 to September 6

- 10 a.m. to 4 p.m. Sunday to Friday
- 10 a.m. to 6 p.m. Saturday

Fees are payable from May 22 to September 6 for all services, and until October 11 for vehicle and trailer parking and launching.

### Jones Creek trails

Open year-round. Parking fees apply May 22 to September 6.

### Landon Bay Centre

(Privately operated)

Open year-round. Parking fee for Jones Creek and Mallorytown Landing covers trail use at Landon Bay May 22 to September 6. Separate fees apply for other services and off-season use. For more information visit [www.landonbay.org](http://www.landonbay.org).

### Islands

Services and facilities are maintained from Victoria Day to Thanksgiving (May 22 to October 11). Fees are payable by self-registration.

### Park Administration Office

8 a.m. to 4:30 p.m., Monday to Friday, year round.

## Fees & more Information



[parks.canada.gc.ca/sli](http://parks.canada.gc.ca/sli)  
613-923-5261

## Events & Programs

For more information or to pre-register for events, call 613-923-5261 or email [ont-sli@pc.gc.ca](mailto:ont-sli@pc.gc.ca). All events take place at the Mallorytown Landing Visitor Centre (1121- 1000 Islands Parkway) unless otherwise noted. Parking fees (\$6.80 per vehicle) apply at Mallorytown Landing and Jones Creek from May 22 to September 6. Additional costs are noted if applicable. Seasonal permits are available.

May 22 – **Visitor Centre opens for 2010** – Meet native snakes, fish and other animals and check out the world of nocturnal creatures with our new travelling exhibit “Bats of Ontario” from the Royal Ontario Museum. Bring a picnic and explore new outdoor exhibits on Mohawk culture and the stories of local residents who make a difference in our ecosystem.

May 29 – **Hill Island Hike** – Participate in an off-trail guided hike through the national park's nature preserve on Hill Island to learn more about the scientific research taking place in this protected area of the park. Meet in the 1000 Islands SkyDeck parking lot on Hill Island. Bridge toll will be charged to access Hill Island. 1 – 3 p.m.

June 5 – **Jones Creek Hike – International Trails Day** – Explore St. Lawrence Islands National Park's new trail system at Jones Creek in a tour of the trails' highlights and a look at the biodiversity of the 1000 Islands region. Trailhead is accessible from the 1000 Islands Parkway, across from the Brown's Bay picnic area. Parking fee applies. 1 – 3 p.m.

July & August – **Nature Kids** – Young children ages 3 to 5 can explore nature, play games, and take part in interactive activities with their parent or adult supervisor. A new nature theme is explored each week. Wednesdays 10:30 a.m. – 12 p.m. July 7 to August 25.

July & August – **Feeding Time** – Learn more about what the animals in our ecosystem are eating and how they find and consume their food as we feed the Visitor Centre's summer residents. Tuesdays and Saturdays at 2 p.m.

July & August – **Roving Interpretation** – Is fire a friend or foe? What's happening to the turtles in the river? Watch for park interpreters on the weekends as they rove through the campsites and docks of national park islands to share the stories of St. Lawrence Islands National Park.

July & August – **Landon Bay Nature Day Camp** – In partnership with the Frontenac Arch Biosphere Reserve, St. Lawrence Islands National Park offers programming during the Landon Bay Nature Day Camp's week-long sessions. Children ages 6 to 11 will explore a new environmental theme each week through outdoor adventures, experiments, crafts and other fun activities.

Please contact the Frontenac Arch Biosphere Reserve at 613-659-4824 or visit [www.landonbay.org](http://www.landonbay.org) for program, registration and fee information.

July 1 – **Canada Day Celebrations** – Celebrate Canada Day at St. Lawrence Islands National Park. Enjoy cake, games, face painting and films showcasing Ontario's national parks. Activities from 12 – 3 p.m. Vehicle parking fee does not apply on Canada Day.

July 10 – **Kids' Fishing Day with the OPP** – Join the Ontario Provincial Police for a day of family fishing fun at St. Lawrence Islands National Park. Contact the park for more details.

July 17 – **Canada's Parks Day – Birds of Prey Flight Show** – See free-flying birds of prey up close during flight demonstrations by Little Ray's Reptile Zoo. Celebrate Canada's Parks Day by meeting birds, reptiles, amphibians and other animals representing the diversity of life in and around St. Lawrence Islands National Park. Shows at 1:00 and 2:30 p.m.

September 11 – **Geocaching 101** – Search for multi-caches along the park trails or join us for a one-hour workshop that will help you get started on this family-friendly global activity. GPS units will be provided for the beginner workshop. Pre-registration required. 12 – 4 p.m.

September 17-19 & 25-26 – **Art in the Park** – The Thousand Islands Fine Arts Association (TIFAA) art exhibit and winners of the 2009 Art in the Park contest will be displayed in the Mallorytown Landing Visitor Centre.

October 2 – **Hill Island Hike** – Participate in an off-trail guided hike through the national park's nature preserve on Hill Island to learn more about the scientific research taking place in this protected area of the park. Meet in the 1000 Islands SkyDeck parking lot on Hill Island. Bridge toll will be charged to access Hill Island. 1 – 3 p.m.

October 15 – **Photo Contest Entry Deadline** – Capture the beauty of St. Lawrence Islands National Park during your visits and enter your photos in our annual photo contest. Contest details and entry forms available at [www.pc.gc.ca/sli](http://www.pc.gc.ca/sli).

Fall 2010 – **Completion of Fitzsimmons Mountain Trail** – Accessible only by kayak or canoe from Landon Bay, the 5-km round-trip trail leads to an impressive scenic lookout.

## How to Get to St. Lawrence Islands NP

St. Lawrence Islands National Park's mainland trails, visitor centre, and administration office are located on the 1000 Islands Parkway between Brockville and Gananoque, Ontario. The 1000 Islands Parkway is accessible from Highway 401 exits 647 to 685 and from the United States via the 1000 Islands International Bridge.

**Mallorytown Landing visitor centre, trails and boat launch:** 1121-1000 Islands Parkway (401 exit 675).

**Jones Creek trails:** 1000 Islands Parkway, 6 km east of Mallorytown Landing (401 exit 675 or 685).

**Landon Bay Centre:** 302-1000 Islands Parkway (401 exit 647)

**Administration office:** 2 County Road 5 (401 exit 675).

**Islands:** More than 20 island properties in the St. Lawrence River between Kingston and Brockville. The park does not provide transportation to the islands.

